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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/072,809B

DATE: 01/27/2003 TIME: 11:01:40

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Output Set: N:\CRF4\01272003\J072809B.raw 3 <110> APPLICANT: Anderson, Marilyn, A., Lay, Fung T., Heath, Robyn, L. 5 <120> TITLE OF INVENTION: Plant-derived molecules and genetic sequences encoding same and uses therefor 8 <130> FILE REFERENCE: 18-01 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/072,809B 11 <141> CURRENT FILING DATE: 2002-02-08 13 <150> PRIOR APPLICATION NUMBER: USSN 60/267,271 14 <151> PRIOR FILING DATE: 2001-02-08 16 <160> NUMBER OF SEQ ID NOS: 62 18 <170> SOFTWARE: PatentIn version 3.0 20 <210> SEQ ID NO: 1 21 <211> LENGTH: 28 22 <212> TYPE: DNA ENTERED 23 <213> ORGANISM: Artificial Sequence 25 <220> FEATURE: 26 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer 28 <400> SEQUENCE: 1 29 ggaattccat atggctcgct ccttgtgc 28 31 <210> SEQ ID NO: 2

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RAW SEQUENCE LISTING DATE: 01/27/2003
PATENT APPLICATION: US/10/072,809B TIME: 11:01:40

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                                        10
100 aaa cca cca tgc aga aaa gct tgt atc agt gag aaa ttt act gat ggt
                                                                            96
101 Lys Pro Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys Phe Thr Asp Gly
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                                    25
104 cat tgt agc aaa atc ctc aga agg tgc cta tgt act aag cca tgt
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RAW SEQUENCE LISTING DATE: 01/27/2003 PATENT APPLICATION: US/10/072,809B TIME: 11:01:40

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167 gaa gca aaa act ttg gct gca gct ttg ctt gaa gaa gag ata atg gat
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171 aac
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RAW SEQUENCE LISTING DATE: 01/27/2003 PATENT APPLICATION: US/10/072,809B TIME: 11:01:40

Input Set : A:\EP.txt

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200 1 5 10 15	30
200 ctc ttt gtt gcc tat gag gtg caa gct aga gaa tgc aaa aca gaa ag	gc 96
203 Leu Phe Val Ala Tyr Glu Val Gln Ala Arg Glu Cys Lys Thr Glu Se	
204 20 25 30	≎T.
206 aac aca ttt cct gga ata tgc att acc aaa cca cca tgc aga aaa g	ct 144
200 Asn Thr Phe Pro Gly Ile Cys Ile Thr Lys Pro Pro Cys Arg Lys A.	
207 Ash The File Gry Tre Cys Tre The Bys File File Cys Arg Bys A. 208 35 40 45	La
	ga 192
210 tgt atc agt gag aaa ttt act gat ggt cat tgt agc aaa atc ctc ag	
211 Cys Ile Ser Glu Lys Phe Thr Asp Gly His Cys Ser Lys Ile Leu A 212 50 55 60	rg
•	216
214 agg tgc cta tgt act aag cca tgt	216
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225 1 5 10 15	
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228 20 25 30	_
230 Asn Thr Phe Pro Gly Ile Cys Ile Thr Lys Pro Pro Cys Arg Lys A	la
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250 Arg Glu Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys Ile The 251 1 5 10 15 253 aaa cca cca tgc aga aaa gct tgt atc agt gag aaa ttt act gat gg	
250 Arg Glu Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys Ile The Ser I 10 15 15 15 15 15 15 15 15 15 15 15 15 15	
250 Arg Glu Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys Ile The Ser Ile Th	ly
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DATE: 01/27/2003 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/072,809B TIME: 11:01:40

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Output Set: N:\CRF4\01272003\J072809B.raw

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Pro Cys	Arg	Lys	Ala	Cys		Ser	Glu	Lys	Phe		Asp	GLy	
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ATURE: ME/KEY: ME/KEY: CATION: QUENCE: cgc tcc Arg Ser gtt gcc Val Ala 20 ttt cct Phe Pro 35 agt gag Ser Glu cta tgt Leu Cys gct gaa	CDS (1). 17 ttg Leu 5 tat Tyr gga Gly aaa Lys act Thr att Ile 85 gag	.(31 tgc Cys gag Glu ata Ile ttt Phe aag Lys 70 ttg Leu ata	ttc Phe gtg Val tgc Cys act Thr 55 cca Pro gct Ala	atg Met caa Gln att Ile 40 gat Asp tgt Cys gag Glu gat	Ala gct Ala 25 acc Thr ggt Gly gtg Val gaa Glu aac	Phe 10 aga Arg aaa Lys cat His ttt Phe gca Ala 90	Ala gaa Glu cca Pro tgt Cys gat Asp 75 aaa Lys	tgc Cys cca Pro agc Ser 60 gag Glu act	Leu aaa Lys tgc Cys 45 aaa Lys aag Lys ttg Leu	Ala aca Thr 30 aga Arg atc Ile atg Met gct Ala	Arg 15 gaa Glu aaa Lys ctc Leu act Thr gca Ala 95	Met agc Ser gct Ala aga Arg aaa Lys 80 gct Ala	96 144 192 240 288
	Glu Lys act ttg Thr Leu Q ID NO NGTH: 80 PE: PRT GANISM: QUENCE: Cys Lys Pro Cys 20 Ser Lys 35 Glu Lys Thr Leu Q ID NO NGTH: 54 PE: DNA	Glu Lys Met act ttg gct Thr Leu Ala Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nico QUENCE: 16 Cys Lys Thr 5 Pro Cys Arg 20 Ser Lys Ile 35 Glu Lys Met Thr Leu Ala Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr act ttg gct gca Thr Leu Ala Ala 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotian QUENCE: 16 Cys Lys Thr Glu 5 Pro Cys Arg Lys 20 Ser Lys Ile Leu 35 Glu Lys Met Thr Thr Leu Ala Ala 70 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys 55 act ttg gct gca gct Thr Leu Ala Ala Ala 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana al QUENCE: 16 Cys Lys Thr Glu Ser 5 Pro Cys Arg Lys Ala 20 Ser Lys Ile Leu Arg 35 Glu Lys Met Thr Lys 55 Thr Leu Ala Ala Ala 70 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr 55 act ttg gct gca gct ttg Thr Leu Ala Ala Ala Leu 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn 5 Pro Cys Arg Lys Ala Cys 20 Ser Lys Ile Leu Arg Arg 35 Glu Lys Met Thr Lys Thr 55 Thr Leu Ala Ala Ala Leu 70 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly 55 act ttg gct gca gct ttg ctt Thr Leu Ala Ala Ala Leu Leu 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr 5 Pro Cys Arg Lys Ala Cys Ile 20 Ser Lys Ile Leu Arg Arg Cys 35 Glu Lys Met Thr Lys Thr Gly 55 Thr Leu Ala Ala Ala Leu Leu 70 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly Ala 55 act ttg gct gca gct ttg ctt gaa Thr Leu Ala Ala Ala Leu Leu Glu 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe 5 10 Pro Cys Arg Lys Ala Cys Ile Ser 20 Ser Lys Ile Leu Arg Arg Cys Leu 35 Glu Lys Met Thr Lys Thr Gly Ala 55 Thr Leu Ala Ala Ala Leu Leu Glu 70 Q ID NO: 17 NGTH: 541	Glu Lys Met Thr Lys Thr Gly Ala Glu 55 act ttg gct gca gct ttg ctt gaa gaa Thr Leu Ala Ala Ala Leu Leu Glu Glu 70 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro 5 Pro Cys Arg Lys Ala Cys Ile Ser Glu 20 Ser Lys Ile Leu Arg Arg Cys Leu Cys 35 Glu Lys Met Thr Lys Thr Gly Ala Glu 55 Thr Leu Ala Ala Ala Leu Leu Glu Glu 70 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly Ala Glu Ile 55 60 act ttg gct gca gct ttg ctt gaa gaa gag Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu 70 75 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly 5 10 Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys 20 Ser Lys Ile Leu Arg Arg Cys Leu Cys Thr 35 Glu Lys Met Thr Lys Thr Gly Ala Glu Ile 55 Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu 70 75 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu 55 60 act ttg gct gca gct ttg ctt gaa gaa gag ata Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Ile 70 75 75 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile 5 10 Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys Phe 20 25 Ser Lys Ile Leu Arg Arg Cys Leu Cys Thr Lys 35 40 45 Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu 55 60 Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Ile 70 75 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu Ala 55 60 act ttg gct gca gct ttg ctt gaa gaa gag ata atg Thr Leu Ala Ala Leu Leu Glu Glu Glu Ile Met 70 75 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys 5 10 Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys Phe Thr 20 25 30 Ser Lys Ile Leu Arg Arg Cys Leu Cys Thr Lys Pro 35 40 45 Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu Ala 55 Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Ile Met 70 75 Q ID NO: 17 NGTH: 541 PE: DNA	Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu Ala Glu act ttg gct gca gct ttg ctt gaa gaa gag ata atg gat Thr Leu Ala Ala Leu Leu Glu Glu Glu Ile Met Asp 70 75 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys Ile 10 15 Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys Phe Thr Asp 20 25 30 Ser Lys Ile Leu Arg Arg Cys Leu Cys Thr Lys Pro Cys 35 40 45 Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu Ala Glu 55 Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Glu Ile Met Asp 70 Q ID NO: 17 NGTH: 541 PE: DNA	act ttg gct gca gct ttg ctt gaa gaa gag ata atg gat aac Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Ile Met Asp Asn 70 70 75 80 Q ID NO: 16 NGTH: 80 PE: PRT GANISM: Nicotiana alata QUENCE: 16 Cys Lys Thr Glu Ser Asn Thr Phe Pro Gly Ile Cys Ile Thr 5 10 15 Pro Cys Arg Lys Ala Cys Ile Ser Glu Lys Phe Thr Asp Gly 20 25 30 Ser Lys Ile Leu Arg Arg Cys Leu Cys Thr Lys Pro Cys Val 35 40 45 Glu Lys Met Thr Lys Thr Gly Ala Glu Ile Leu Ala Glu Glu 55 Thr Leu Ala Ala Ala Leu Leu Glu Glu Glu Ile Met Asp Asn 70 Q ID NO: 17 NGTH: 541 PE: DNA

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/27/2003
PATENT APPLICATION: US/10/072,809B TIME: 11:01:41

Input Set : A:\EP.txt

Output Set: N:\CRF4\01272003\J072809B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:58; Xaa Pos. 1,2,4,5,6,8,9,11,13,15,16,17,18,19,21,22,23,25,26,28,30
Seq#:58; Xaa Pos. 31,33,35,36,37,38,39,40,42,45,46
Seq#:59; Xaa Pos. 2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:59; Xaa Pos. 24,25,26,27,28,29,30,32
Seq#:60; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:60; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33
Seq#:61; Xaa Pos. 2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:61; Xaa Pos. 24,25,26,27,28,29,30,32,33,34,36,37,38,40,41,43,45,47,48
Seq#:61; Xaa Pos. 49,50,51,53,54,55,57,58,60,62,63,65,67,68,69,70,71,72,74
Seq#:61; Xaa Pos. 77,78,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96
Seq#:61; Xaa Pos. 97,98,99,100,101,102,103,104,105,106,107,108,109,110,111
Seq#:61; Xaa Pos. 12
Seq#:62; Xaa Pos. 1,2,4,5,6,7,8,9,10,11,12,13,15,16,17,18,19,21,22,23,25,26
Seq#:62; Xaa Pos. 27,28,29,30,31,32,33,35,36,37,38,39,40,42,44,45,46